

1 1. A method of processing substrates comprising,
2 providing a first batch of substrates onto a first substrate processing pallet,
3 engaging a first transport positioning feature of said first substrate pallet with a first
4 transport alignment feature of a first transport mechanism to particularly position said first
5 substrate processing pallet with respect to said first transport mechanism,
6 transporting, with said first transport mechanism, said first batch of substrates on said
7 first substrate processing pallet to a first process chamber adapted to perform a first processing
8 operation,
9 engaging a first processes alignment feature of said first substrate processing pallet with
10 a first chamber alignment feature located within said first chamber to particularly position said
11 first substrate processing pallet with respect to said first process chamber, and
12 performing said first processing operation on said first batch of substrates in said first
13 process chamber.

1 2. The method of claim 1 further comprising,
2 transporting, with a second transport mechanism, said first batch of substrates on said
3 first substrate processing pallet to a second process chamber adapted to perform a second
4 processing operation, and
5 performing said second processing operation on said first batch of substrates in said
6 second process chamber.

1 3. The method of claim 2 further comprising,
2 prior to said transporting step, engaging a second transport positioning feature of said
3 first substrate pallet with a second transport alignment feature of said second transport
4 mechanism to particularly position said first substrate processing pallet with respect to said
5 second transport mechanism.

1 4. The method of claim 2 further comprising,
2 providing a second batch of substrates onto a second substrate pallet substantially
3 concurrently with said step of transporting said first batch of substrates with said second
4 transport mechanism.

1 5. The method of claim 2 further comprising,

2 providing a second batch of substrates onto a second substrate pallet substantially
3 concurrently with said step of performing said second processing operation on said first batch of
4 substrates.

1 6. The method of claim 2 further comprising,
2 providing a second batch of substrates onto a second substrate pallet,
3 transporting said second substrate pallet into said first process chamber, and
4 performing first processing operation on said second batch of substrates substantially
5 concurrently with said step of performing said second processing operation on said first batch of
6 substrates.

1 7. The method of claim 2 further comprising,
2 providing a second batch of substrates onto a second substrate processing pallet,
3 engaging a first transport positioning feature of said second substrate pallet with said
4 first transport alignment feature of said first transport mechanism to particularly position said
5 second substrate processing pallet with respect to said first transport mechanism,
6 transporting, with said first transport mechanism, said second batch of substrates on said
7 second substrate processing pallet to said first process chamber,
8 engaging a first processes alignment feature of said second substrate processing pallet
9 with said first chamber alignment feature located within said first chamber to particularly
10 position said second substrate processing pallet with respect to said first process chamber, and
11 performing said first processing operation on said second batch of substrates substantially
12 concurrently with said step of performing said second processing operation on said first batch of
13 substrates.

1 8. The method of claim 1 further comprising,
2 providing a second batch of substrates onto a second substrate pallet substantially
3 concurrently with said step of performing said first processing operation on said first batch of
4 substrates.

1 9. The method of claim 1 further comprising,
2 transporting, with a second transport mechanism, said first batch of substrates on said
3 first substrate processing pallet to a second process chamber adapted to perform a second
4 processing operation,
5 providing a second batch of substrates onto a second substrate pallet,

engaging a first transport positioning feature of said second substrate pallet with said first transport alignment feature of said first transport mechanism to particularly position said second substrate processing pallet with respect to said first transport mechanism, transporting, with said first transport mechanism, said second batch of substrates on said second substrate processing pallet to said first process chamber, engaging a first processes alignment feature of said second substrate processing pallet with said first process chamber alignment feature located within said first process chamber to particularly position said second substrate processing pallet with respect to said first process chamber, and providing a third batch of substrates onto a third substrate processing pallet.

10. The method of claim 9 further comprising, performing said step of providing said third batch of substrates onto said third pallet substantially concurrently with performing said step of transporting said first batch of substrates to said first process chamber.

11. The method of claim 9 further comprising, performing said step of providing said third batch of substrates onto said third pallet substantially concurrently with performing said second processing operation on said first batch of substrates.

12. The method of claim 9 further comprising, performing said step of providing said third batch of substrates onto said third pallet substantially concurrently with performing said first processing operation on said second batch of substrates.

13. The method of claim 1, wherein said step of providing said first batch of substrates further comprises,

extending lift pins through lift pin apertures in said first substrate processing pallet, placing said first batch of substrates onto said lift pins, and retracting said lift pins to lower said first batch of substrates onto said first substrate processing pallet.

14. The method of claim 1 further comprising, subsequent to said step of performing said first processing operation, extending lift pins through lift pin apertures in said first substrate processing pallet, to raise said first batch of substrates above said first substrate processing pallet to facilitate removal of said first batch substrates from said first substrate processing pallet.

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1 15. The method of claim 1, wherein said step of providing a first batch of substrates further
2 comprises, providing each of said first batch of substrates into an associated recess in said first
3 substrate processing pallet, each said associated recess being adapted to receive one of said first
4 batch of substrates.

1 16. The method of claim 2 further comprising,
2 providing a load lock adapted for containing said first transport mechanism and said
3 first substrate processing pallet during said step of providing said first batch of substrates to said
4 first substrate processing pallet, and
5 subsequent to completion of said step of performing said second processing operation,
6 returning said first batch of substrates on said first substrate pallet through said first process
7 chamber to said load lock.

1 17. The method of 16 further comprising,
2 subsequent to said step of returning said first batch of substrates to said load lock,
3 automatedly removing said first batch of substrates from said first substrate processing pallet.